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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,457	10/24/2000	Rehan M. Khan	M-8758 US	2847

5514 7590 01/11/2007  
FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER
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LAO, LUN S

ART UNIT	PAPER NUMBER
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2615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/11/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/695,457

Applicant(s)

KHAN ET AL.

Examiner

Lun-See Lao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 30-39 and 46-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 62 is/are allowed.
- 6) ☒ Claim(s) 30-39, 46-61, 63 and 64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Introduction***

1. This action is in response to the amendment filed on 10-27-2006. Claims 30, 33-36, 46, 48 51-55 and 60-64 have been amended. Claims 30-39 and 46-64 are pending.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "means" of claims 52, 60 and 64 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 30-39, 46-51, 53-59, and 61, 63 are rejected under 35 U.S.C. 101

because the claimed invention is directed to non-statutory subject matter.

Regarding method claims 30-39, 46-47, 61, these method steps are directed to abstract ideas of manipulating data/waveform/codebook, without producing tangible result which enable the usefulness of the invention to be realized. Therefore claims 30-39, 46-47 and 61 are non-statutory under 35 USC 101.

Regarding claims 48-51, 53-59, 63, the computer program product and control logic are also directed to abstract ideas, rather than a practical application; therefore claims 48-51, 53-59, 63 are non-statutory under 35 USC 101.

***Claim Rejections - 35 USC § 112***

5. Claim 52 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and/or use the invention.

The claim limitation "an apparatus for fingerprinting an audio waveform, comprising:

means for defining a codebook which represents a multivariate vector of one or more spectral features with one of a plurality of codes, each code corresponding to a bin and representing a portion of a predetermined audio waveform;

means for dividing the audio waveform into a plurality of bins;

means for computing one or more spectral features for a first group of data points within each bin of the plurality of bins;

means for shifting some number of data points within each bin of the plurality of bins; and

means for computing the one or more spectral features for a second group of data points within each bin of the plurality of bins; and

means for generating a fingerprint by representing the audio waveform with a string of codes from the codebook, each code corresponding to a segment of the audio waveform; and

means for aligning the string of codes in a time series" was not clearly described in the further detail in the specification (see specification page 10 line 6-page 11 line 24 ).

In the application as filed, there does not appear to be any detailed descriptions or disclosure of means of the steps in the figures. However, the specification never disclosed any means of the steps.

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6. Claim 60 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claim limitation " an apparatus for creating a signature of an audio waveform, comprising:

means for dividing the audio waveform into a plurality of bins;

means for selecting a first group of data points within each bin;

~~means~~ for computing one or more spectral features for each bin based upon the first group of points within the plurality of bins;

means for selecting a second group of data points within each bin;

means for computing one or more spectral features for each bin based upon the second set of data points within the bins of the plurality;

means for referencing a codebook using the one or more spectral features, wherein the codebook represents at least one multivariate vector; and

means for creating one or more signatures representing the audio waveform with a string-of codes from the codebook, each code corresponding to a segment of the audio waveform" was not clearly described in the further detail in the specification (see specification page 10 line 6-page 11 line 24).

In the application as filed, there does not appear to be any detailed descriptions or disclosure of means of the steps in the figures. However, the specification never disclosed any means of the steps.

7. Claim 64 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claim limitation “ an apparatus for fingerprinting an audio waveform, comprising:

means for defining a codebook which represents a multivariate vector of one or more spectral features with a corresponding one of a plurality of codes;

means for dividing the audio waveform into a plurality of bins;

means for computing one or more spectral features for each bin; and

means for generating a fingerprint by representing the audio waveform with a string of codes from the codebook based on the computed one or more spectral features for each bin” was not clearly described in the further detail in the specification (see specification page 10 line 6-page 11 line 24).

In the application as filed, there does not appear to be any detailed descriptions or disclosure of means of the steps in the figures. However, the specification never disclosed any means of the steps.

***Allowable Subject Matter***

8. Claim 62 is allowed.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 30-39 and 46-64 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any response to this action should be mailed to:

Mail Stop \_\_\_\_ (explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Facsimile responses should be faxed to:  
**(571) 273-8300**

Hand-delivered responses should be brought to:  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao,Lun-See whose telephone number is (571) 272-7501. The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.




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Lao, Lun-See *L.S.*  
Patent Examiner  
US Patent and Trademark Office  
Knox  
571-272-7501  
Date 01-05-2007

  
VIVIAN CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600